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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

SIVAVEC et al.

Group Art Unit: 3673

Application No.: 09/682,142

Examiner: Katherine W. Mitchell

Filed: July 26, 2001

For: PERMEABLE-REACTIVE BARRIER MONITORING  
METHOD AND SYSTEM

DEC 04 2002

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GROUP 3600

## DECLARATION UNDER 37 C.F.R. §1.131

Assistant Commissioner for Patents  
Washington, D. C. 20231

We, Timothy M. Sivavec and Angelo A. Bracco, hereby declare and state:

1. This Declaration is submitted as evidence that the subject matter claimed in the above-identified application was invented by us prior to October 31, 2000.
2. We are the persons named as inventors in the above-identified application.
3. We are the authors of Patent Disclosure Letter on Remote Monitoring System for Permeable Reactive Barriers written prior to October 31, 2000, which appears in part as the Exhibit A (thirteen pages) attached to this Declaration.
4. Exhibit A is a true copy of our invention proposal, dates having been deleted therefrom prior to preparing the copy.
5. The invention of the method and system described in Exhibit A may be summarized as follows:

A method, comprising: conducting a permeable-reactive barrier (PRB) treatment of a contaminated aqueous medium; and in-well monitoring effectiveness of the PRB treatment.

A method of treating a contaminated groundwater, comprising: sensing a characteristic of the contaminated groundwater with a sensor placed in at

least one well emplaced substantially along a transect of a longitudinal axis of a PRB zone; and remotely monitoring the sensing to determine effectiveness of a remediation treatment of the groundwater.

A system, comprising a PRB zone to treat a contaminated groundwater; a sensor located substantially along a PRB zone transect of flow of the contaminated groundwater from an up-gradient location, across the PRB zone to a down-gradient location.

6. Exhibit A describes an invention conceived and reduced to practice by us in the United States prior to October 31, 2000.

7. This invention is claimed in the above-identified application.

8. That as described in Exhibit A prior to October 31, 2000 in the United States, we carried out a reduction to practice of our invention by conducting a permeable-reactive barrier (PRB) treatment of a contaminated aqueous medium; and in-well monitoring effectiveness of the PRB treatment.

9. That as described in Exhibit A prior to October 31, 2000 in the United States, we carried out a reduction to practice of our invention by sensing a characteristic of contaminated groundwater with a sensor placed in at least one well emplaced substantially along a transect of a longitudinal axis of a PRB zone; and remotely monitoring the sensing to determine effectiveness of a remediation treatment of the groundwater.

10. That as described in Exhibit A prior to October 31, 2000 in the United States, we carried out a reduction to practice of our invention by providing a PRB zone to treat a contaminated groundwater; a sensor located substantially along a PRB zone transect of flow of the contaminated groundwater from an up-gradient location, across the PRB zone to a down-gradient location

We hereby declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such false statements may jeopardize the validity of the application or any patent issuing therefrom.

Nov. 25, 2002

Date

Timothy M. Sivavec

Angelo A. Bracco

Nov. 25, 2002

Date

Angelo A. Bracco